

**IMPLEMENTATION OF GREEN PRACTICES IN  
CONTROLLING THE INFECTION OF BAGWORM  
(*Metisa plana*, *Pteroma pendula* & *Mahasena corbetti*)  
IN OIL PALM(*Elaeis guineensis*) PLANTATION.**

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**BACHELOR OF SCIENCE (Hons.)  
PLANTATION MANAGEMENT AND TECHNOLOGY  
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UNIVERSITI TEKNOLOGI MARA**

**JULY 2016**

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**NIK NORAFIZA BINTI NIK MAZLAN**

**Final Year Project Report Submitted in  
Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Plantation Management and Technology  
in the Faculty of Plantation and Agrotechnology  
Universiti Teknologi MARA**


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## DECLARATION

This Final Year Project is a partial fulfilment of the requirements for a degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.


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I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

Signature:  .....

Name of Supervisor: NUR ADIERA RUSLAN .....

Position: LECTURER .....

Date: 21.07.2016 .....

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## ABSTRACT

Oil palm (*Elaeis guineensis*) is a mainly industry that contribute to the Malaysia economy development, but infection of disease and pest can caused losses of oil palm yield. Bagworm are one important leaf-eating pest causing losses yield 33%-40% over two years after serious infestation when without controlled this pest. Bagworm have three types are *Metisa plana*, *Mahasena corbetti* and *Cremastopsyche pendula* (*Pteroma pendula*). This study was conducted to determine the factors that influences implementation of green practices in controlling the infection of bagworm in oil palm plantation among smallholders at Tapah, Perak. Then, to identify the relationship between factors (independent variable) influencing implementation of green practices (dependent variable). This paper also to determine the most factor that influences implementation of green practices in controlling infection of bagworm in oil palm plantation. Definition of Green practices is without used chemical in method for control bagworm infection in oil palm plantation. Example of green practices are cultural practice (planting beneficial plant), biological control (insect beneficial and *Bacillus thuringiensis*) and mechanical control(pheromone trap). A model is developed to guide the research and based on supporting existing literature. The scope of this study is Tapah, Perak and targeted population as oil palm smallholders in this location. Besides, sample of this study was 113 respondents among oil palm smallholders were select randomly. Based on the results, there were four factors that influences implementation of green practices which are health, cost, oil palm yield and environmental friendly. The Pearson correlation coefficient analysis showed that all factors significantly influence and have positive relationship with implementation of green practices. But, multiple regression analysed showed three factor from four variables have significant influences implementation of green practices. Three factors are health, cost and oil palm yield. Factor of environmental friendly is not significant influences implementation of green practices. Oil palm yield is the most influence implementation of green practices. In conclusion, government are responsible to educate and take action toward smallholders in implementing green practices than using chemical method to controlling infection of bagworm in oil palm plantation.

Keywords: Bagworm, Green practices, Losses yield, Oil palm yield, Oil palm.